

Atty Dkt. No.: 10971150-2  
USSN: 10/080,641

### **AMENDMENTS TO THE CLAIMS**

Please incorporate the following amendments to the subject application.

**In the Claims:**

1-31. (Canceled)

32. **(Currently Amended)** An apparatus for interrogating an addressable array of multiple features of different biopolymeric moieties, comprising:

(a) an adjustable detection angle detector system comprising more than one detector each of which is aligned with an emission filter that filters out light of an interrogating wavelength such that each detector of the detection system detects light of different wavelengths at respective different detection angles with an optical axis aligned at each detection angle, **wherein said system is configured for positioning at least one of said more than one detectors at a site for receiving a constructively interfering emission from an array having a reflective coating;** and

(b) a processor programmed to receive signals from the detector system and correlate the received signals with respective biopolymeric features of the array.

33. (Original) An apparatus according to claim 32 additionally comprising a light source to provide an interrogating light in response to which the features emit the light of different wavelengths.

34-35. (Canceled)

36. (Original) An apparatus according to claim 32 additionally comprising a reader to read a code carried by an array unit, and a processor which causes the detector system to detect emitted light at a detection angle based on the read code.

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37. (Original) An apparatus according to claim 33 wherein the light source produces a spot of light at the array, the apparatus additionally comprising a scanning system which scans the interrogating light spot across the array.

38. (Currently Amended) An apparatus for interrogating an addressable array of multiple biopolymeric features of different moieties, comprising:

- (a) a seat which can retain an array unit carrying the array in a position for interrogation;
- (b) a detector system which can detect light at multiple different positions around a cone having an apex at a seated array, wherein said detector system includes an emission filter that filters out light of an interrogating wavelength and is configured for positioning at least one of said more than one detectors at a site for receiving a constructively interfering emission from an array having a reflective coating; and
- (c) a processor programmed to receive signals from the detector system and correlate the received signals with respective biopolymeric features of the array.

39-42. (Canceled)

43. (Previously Presented) An apparatus for interrogating an addressable array of multiple features of different biopolymeric moieties, comprising:

- (a) an adjustable detection angle detector system having a detector aligned with an emission filter that filters out light of an interrogating wavelength, wherein said detector can be moved to align with different detection angles so as to detect different emitted light wavelengths at respective different detection angles; and
- (b) a processor programmed to receive signals from the detector system and correlate the received signals with respective biopolymeric features of the array.

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44. (Previously Presented) An apparatus according to claim 43 additionally comprising a light source to provide an interrogating light in response to which the features emit the light of different wavelengths.

45. (Previously Presented) An apparatus according to claim 43 additionally comprising a reader to read a code carried by an array unit, and a processor which causes the detector system to detect emitted light at a detection angle based on the read code.

46. (Previously Presented) An apparatus according to claim 44 wherein the light source produces a spot of light at the array, the apparatus additionally comprising a scanning system which scans the interrogating light spot across the array.

47. (Currently Amended) An apparatus for interrogating an addressable array of multiple features of different biopolymeric moieties, comprising:

(a) a detector system having a detector aligned with an emission filter that filters out light of an interrogating wavelength and an adjustable detection angle, wherein said system is configured for positioning at least one of said more than one detectors at a site for receiving a constructively interfering emission from an array having a reflective coating; and

(b) a processor programmed to receive signals from the detector system and correlate the received signals with respective biopolymeric features of the array.

48. (Previously Presented) An apparatus according to claim 47 additionally comprising a light source to provide an interrogating light in response to which the features emit light of different wavelengths.

49. (Previously Presented) An apparatus according to claim 47 wherein the detector system comprises at least one detector with an optical axis which can be moved to align with different detection angles.

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50. (Previously Presented) An apparatus according to claim 49 wherein the detector system comprises multiple detectors positioned at corresponding multiple different detection angles.

51. (Previously Presented) An apparatus according to claim 49 additionally comprising a reader to read a code carried by an array unit, and a processor which causes the detector system to detect emitted light at a detection angle based on the read code.

52. (Previously Presented) An apparatus according to claim 48 wherein the light source produces a spot of light at the array, the apparatus additionally comprising a scanning system which scans the interrogating light spot across the array.

53. (Currently Amended). An apparatus according to claim 43~~[[7]]~~, wherein said detector system is ~~positioned to~~ configured for positioning at least one of said more than one detectors at a site for receiving a constructively interfering emission from an array having a reflective coating.

54. (Previously Presented) An apparatus according to claim 48, wherein said light source and said detector system are positioned to provide light and detect light from the same side of the array.

55. (Previously Presented) An apparatus according to claim 32 wherein said apparatus further includes an addressable array of multiple features of different biopolymeric moieties and a reflective coating.

56. (Previously Presented) An apparatus according to claim 38 wherein said apparatus further includes an addressable array of multiple features of different biopolymeric moieties and a reflective coating.

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57. (Previously Presented) An apparatus according to claim 43 wherein said apparatus further includes an addressable array of multiple features of different biopolymeric moieties and a reflective coating.

58. (Previously Presented) An apparatus according to claim 47 wherein said apparatus further includes an addressable array of multiple features of different biopolymeric moieties and a reflective coating.

59. (New) An apparatus according to claim 32, wherein said system is further configured for determining said position for receiving a constructively interfering emission.

60. (New) An apparatus according to claim 32, wherein said interrogating light is configured for being adjusted in a manner sufficient to constructively illuminate a feature with both reflected and non-reflected light.

61. (New) An apparatus according to claim 32, wherein said array is forward of said reflective coating.